Camera Demo Tool
User Manual

Version 1.5.04.13

2013/02/23

ACTi
Connecting Vision

Table of Contents

1 Overview 3

Introduction 3
Main Functions 3
System Requirements 4
Installation 4

2 Startup 5

Selecting PC Configuration 5
Connecting to the Camera 6
Configuring Video Streaming Settings 8

3 Live View 9

Live View Options 10
Multi VGA View Mode 12
ePTZ View Mode 13
DNR View Mode 14
WDR View Mode 15
Edge Enhancement View Mode 16
Snapshot 17

4 Playback 18

Overview

Introduction

Camera Demo Tool is a Windows based program to help you demo the new products more quickly and easily. You don't need to install NVR or any image codec to do live streaming and snapshot. The program is designed to be adaptive to various PC hardware conditions and improve its performance.

Main Functions

1. Two preset configurations for the most-adopted PC hardware capabilities based on processor level:
   Preset Configuration for Intel Core i3 and **Preset Configuration for Intel Core i5**
2. Live View modes supporting specific camera features as below:

Available Demo Functions		Single View (Normal)	4 VGA View	6 VGA View	DNR	WDR	Edge	Snap-shot	ePTZ in Cam	ePTZ in Demo Tool	Optical Zoom or PTZ
Supported Models	KCM-5211	Y	Y		Y			Y		Y	Y
	KCM-5211E	Y	Y		Y	Y	Y	Y		Y	Y
	KCM-5511	Y			Y	Y	Y	Y		Y	Y
	KCM-5611	Y			Y	Y	Y	Y		Y	Y
	KCM-3311	Y	Y		Y	Y	Y	Y		Y	Y
	KCM-7111	Y	Y		Y			Y		Y	
	KCM-7311	Y	Y		Y	Y	Y	Y		Y	Y
	KCM-3911	Y		Y	Y	Y	Y	Y	Y		
	KCM-7911	Y		Y	Y	Y	Y	Y	Y		
	KCM-8x11	Y			Y	Y	Y	Y			Y
	Dxx	Y			Y			Y		Y	
	Exx	Y			Y	Y	Y	Y		Y	

3. Capturing snapshot in Live View
4. Manual recording in Live View
5. Playback RAW files

System Requirements

Operation system: 32/64-bit Windows 7 Professional/Enterprise/Ultimate

Installation

1. Download software package.
2. Execute the installer file "**Camera_Demo_Tool_v1.5.04.13.exe** .

After the installation, a shortcut will appear on your Desktop. Click it to execute the application.

Note: **Camera Demo Tool** uses the Active X control components that are different with ACTi NVR software 2.X versions'; hence, you should run **Demo Tool** on a computer without any ACTi NVR software installed.

Startup

Before running **Camera Demo Tool**, please

1. Get your camera connected to your computer. Start by changing your computer's IP address to be in the same network segment with your camera's, which usually starts with 192.168.0.XXX.
2. Check the camera **IP Address**, **Account**, **Password** and **Port number**.

Selecting PC Configuration

As you first run this application, please select a PC configuration on **Settings** page before starting camera related operations. Based on computer's speed and processing power, the preset configurations use appropriate video settings to ensure that your computer can work reliably and smoothly while streaming. Next time you run **Camera Demo Tool**, it will load the configuration you saved during last session.

Camera Demo Tool provides three PC configurations. Select either preset configuration whose computing capability is more similar to your computer's, or the third one for other computer types.

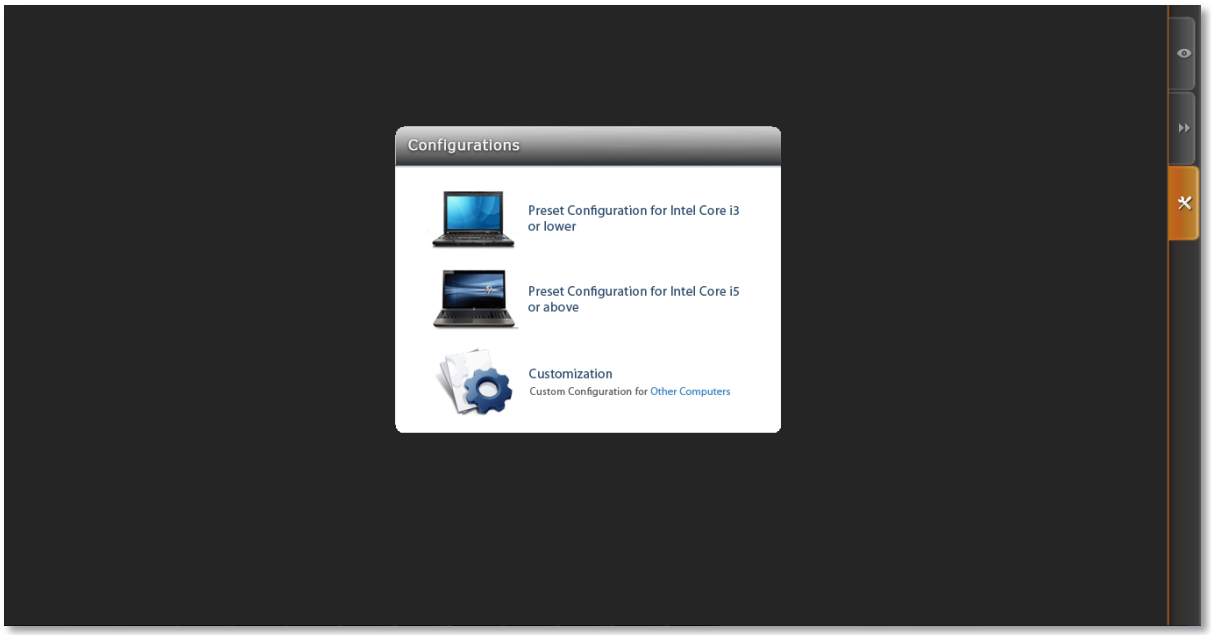

Configurations
Preset Configuration for Intel Core i3 or lower
Preset Configuration for Intel Core i5 or above
Customization
Custom Configuration for Other Computers

Fig. 1 Configuration Page

If you choose "**Preset Configuration for Intel Core i3**" or "**lower or Preset Configuration for Intel Core i5**" configuration, the video settings - **Encoder Type**, **Resolution**, **Bit rate** and **FPS** are all pre-selected, which are not configurable during your operation.

If your computer's performance level is various from those two presets', or you would like to adjust certain property for a special need, select "**Customization**" as PC configuration. Note that the pre-selected video streaming properties are based on higher computer standard; you should tailor the video streaming settings to fit your system condition and achieve good video quality for the purpose of demonstration.

Connecting to the Camera

After selecting a PC configuration, you can start connecting to your camera, or click "**Cancel**" to select another configuration. On **Settings** page, please key in the correct **IP address, HTTP port number**, **Account** name, and **Password**, and click "**Connect**" to see the live view. If your computer is already connected to a camera with connection settings the same as default, **Camera Demo Tool** will automatically get the live view.

IP Address:	192.168.0.100
Http Port:	80
Account:	Admin
Password:	123456

Fig. 2 Connection Settings

After setting is done, click "**Save**" to save current connection settings for later operations. **Camera Demo Tool** will remember the settings and automatically connect to this camera next time you run it.

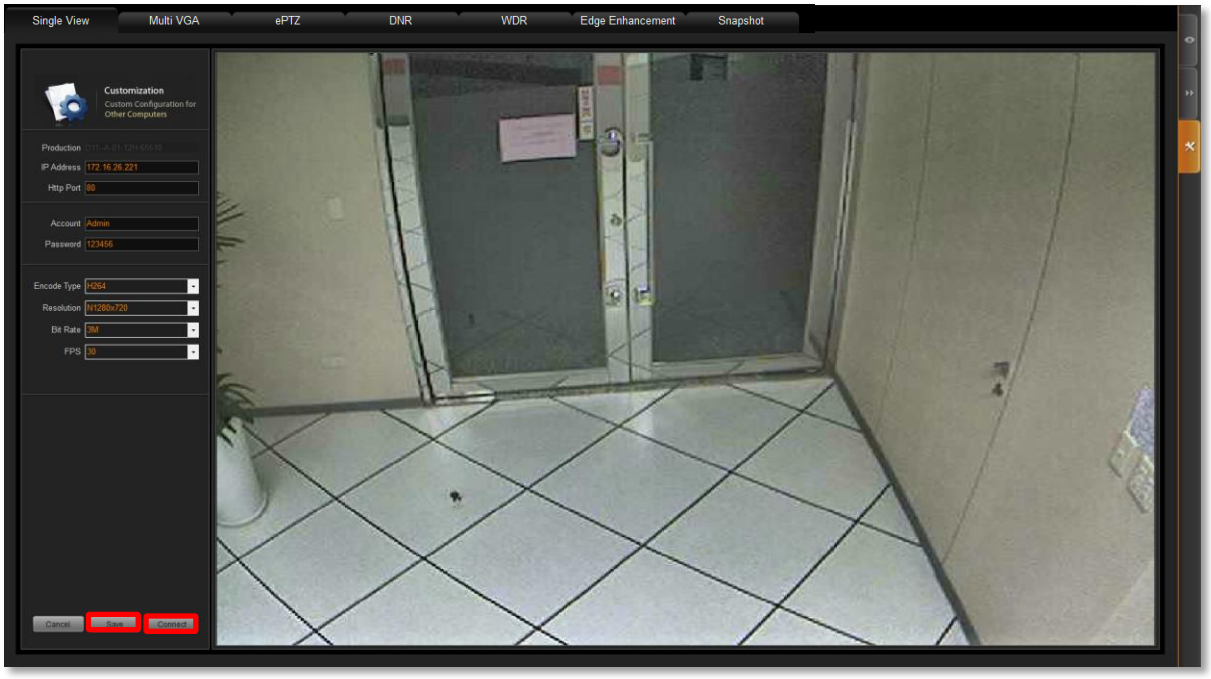


Fig. 3 Connection Settings-Save Settings

Configuring Video Streaming Settings

For specific demo purpose, for example, to use higher bit rate for high quality video stream, you may need to modify the preset bit rate value. PC Configuration "**Customization**" allows every video streaming property to be changed. On **Settings** page, you can select any of the following view modes and configure its video streaming settings: **Single View**, **Multi VGA**, **ePTZ, DNR, WDR, Edge Enhancement** and **Snapshot**, then the settings will take effect in **Live View**.

1. Select a view mode.
2. Fill in the connection settings and click "**Connect**" to get the video stream.
3. Modify its video streaming properties.
4. Click "**Save**" to save current settings.

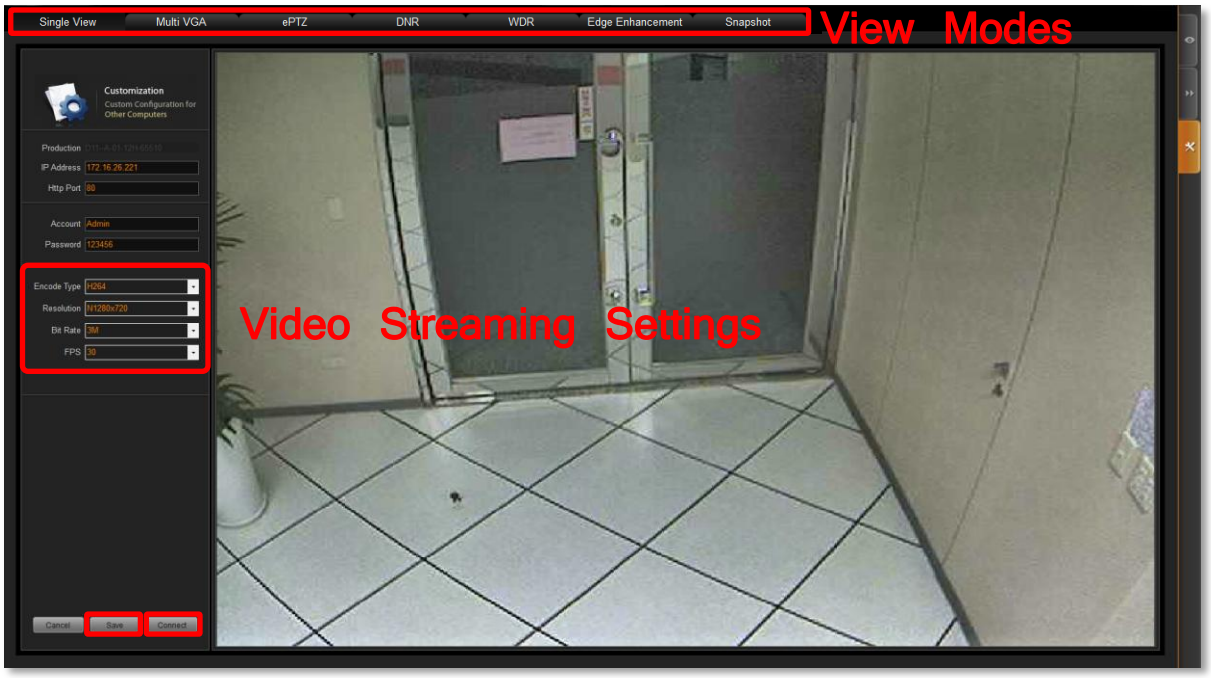


Fig. 4 Video Streaming Settings

Note: By choosing "MJPEG" as encoder type, Bit Rate field is hidden and Quality field will appear for you to modify.

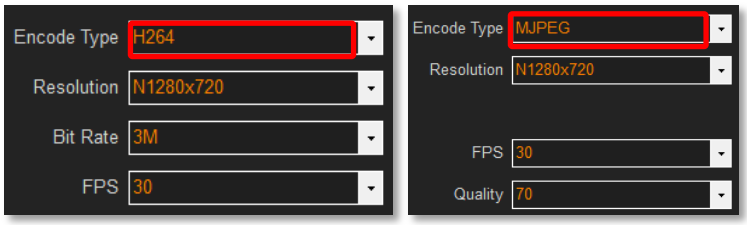


Fig. 5 Video Streaming Settings-Encoder Type

Note: The **View Mode** settings will only take effect in **Live View** when the camera model supports the corresponding functions, and vice versa.

Live View

After configuration is done, switch to **Live View** page to start watching live streaming. There are few modes to present KCM-series features in terms of high megapixel video streaming on-demand, multi VGA cropped video streaming on-demand, ePTZ support, DNR technology, WDR technology, Edge Enhancement for video and still image on-demand. A Live View mode tab will only show up when the camera model supports the corresponding feature. For example, only **Single View**, **Multi- VGA**, **DNR** and **Snapshot** mode tabs would be available in **Live view** when a KCM-5111 camera is connected.

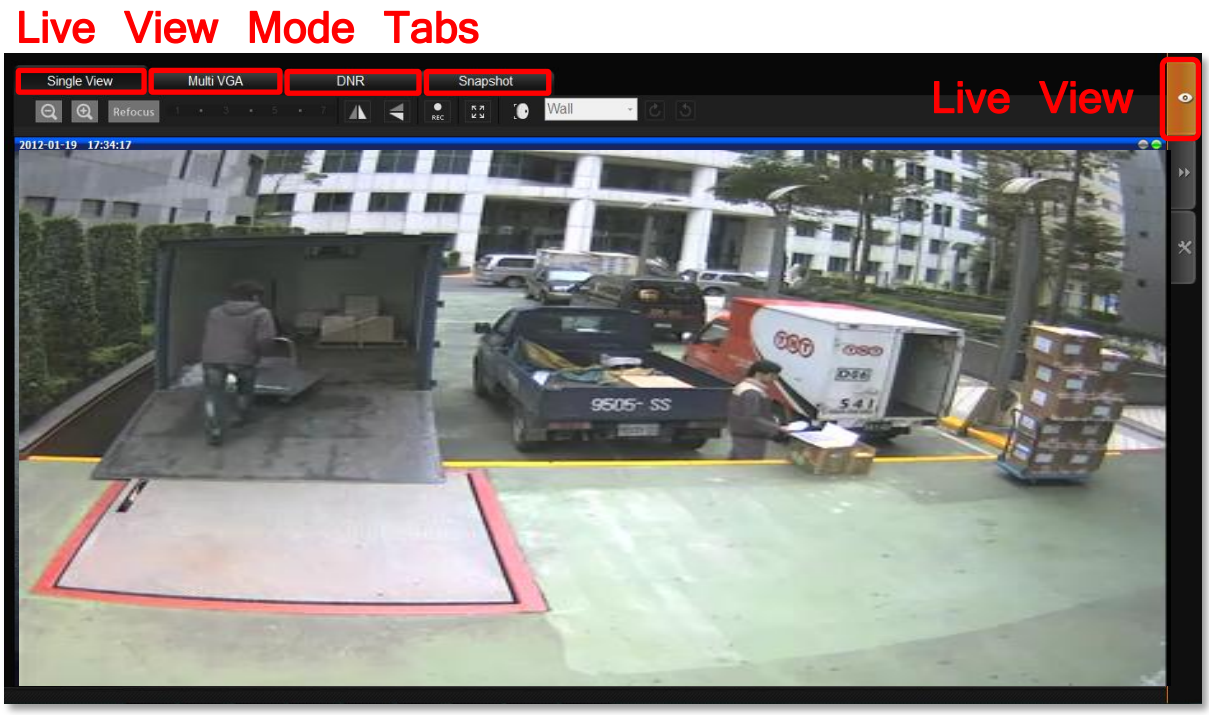


Fig. 6 Live View – KCM-5111 View Mode Tabs

Live View Options

On top of the windows are **Live View** control options. Certain options are available when connected to specific camera models.

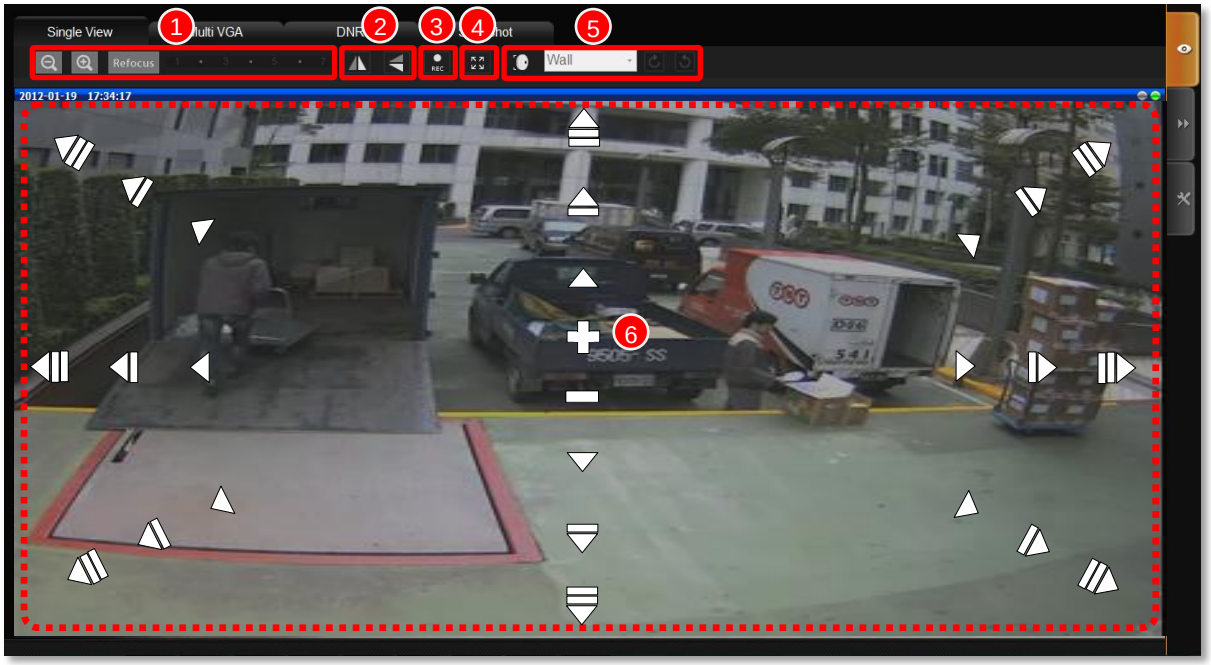


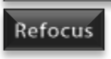
Fig. 7 Single-view

When you go to this page, it will automatically connect to the IP address last time saved for a configuration**.** The green light on upper right corner of the view means video is streaming normally. To reconnect the video, you can click on "**Single View**" tab again.

1. Zoom Options

Zoom In / Zoom Out

Zoom Speed (1-7)



Refocus

The zoom options are enabled for camera models with optical zooming function.

2. Image Direction Options

Image Flip Switch

Image Mirror Switch

Click on the buttons to switch between different mage directions.

Note: As certain dome cameras are placed on the desk for demonstration instead of in the appropriate installation position (e.g. ceiling), Demo Tool will automatically change the camera settings as following to fulfill demonstration conditions:

- Disable both the **Flip** and **Mirror** functions for the models: D51 / E51/ E52,
- Enable both the **Flip** and **Mirror** functions for the models: D52 / E53 / E54.

You may have to modify the camera setting after demonstration as they have been changed.

3. **Start/Stop Manual Recording**

Click on it to start or stop recording. While recording, a red light on upper right corner of the view will indicate the recording is in process.

Fig. 8 Single-view recording

After you stop recording, the recorded video clip is saved under **C:\[Users]\[User name]\My Picture**, named by time code as .RAW file. A text file named after the recording file will automatically be generated under the same folder. This text file contains all the properties information (e.g. resolution, encoder type, FPS, bit rate, etc.) of the camera while the recording was taking place, which is very helpful for further analysis.

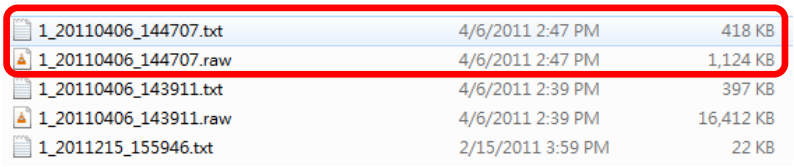


Fig. 9 Recordings and video info

Note: Please check if your hard drive is enough for new recordings. Record function will not be able to carry out if there is not enough memory.

4. **Full Screen**

Click on this button, image will fit to the entire screen. Double-click on the screen to exit full screen mode.

5. **Hemispherical Camera Options**

Camera Position

Select the camera "**Wall**" or "**Ceiling**" according to your fisheye camera's actual installation position (Default is **Wall**). These options are only available for fisheye cameras like KCM-3911, KCM-7911.

Rotate

When the fisheye camera is in "**Ceiling**" position, these buttons will become available. Click to rotate the view angle 15 degrees clockwise or to rotate the view angle 15 degrees counter-clockwise.

6. **PTZ Options**

As you move the mouse cursor over the screen, the PTZ control symbols will appear; left-click on any of these buttons to control PTZ function. For mechanical PTZ cameras, these controls will automatically act as the mechanical PTZ controls. For the rest of the cameras, these controls do the digital pan, tilt and zoom within the captured picture of Demo Tool.

Note: Digital Zoom functions are not supported in 6VGA or ePTZ mode.

Multi VGA View Mode

You can use this mode to demo 4 VGA or 6 VGA modes. If device stream from camera is 4 VGA, then the layout style will be 2x2 layout style displaying stream 1, 2, 3, and 4. If the device stream from camera is 6 VGA, then the layout style will be 3x2 layout displaying stream 1, 2, 3, 4, 5, and 6. Before running Multi VGA mode display, please configure desired cropping positions in Web Configurator in advance. Otherwise, the default position is centered in the image.

Fig. 10 4VGA

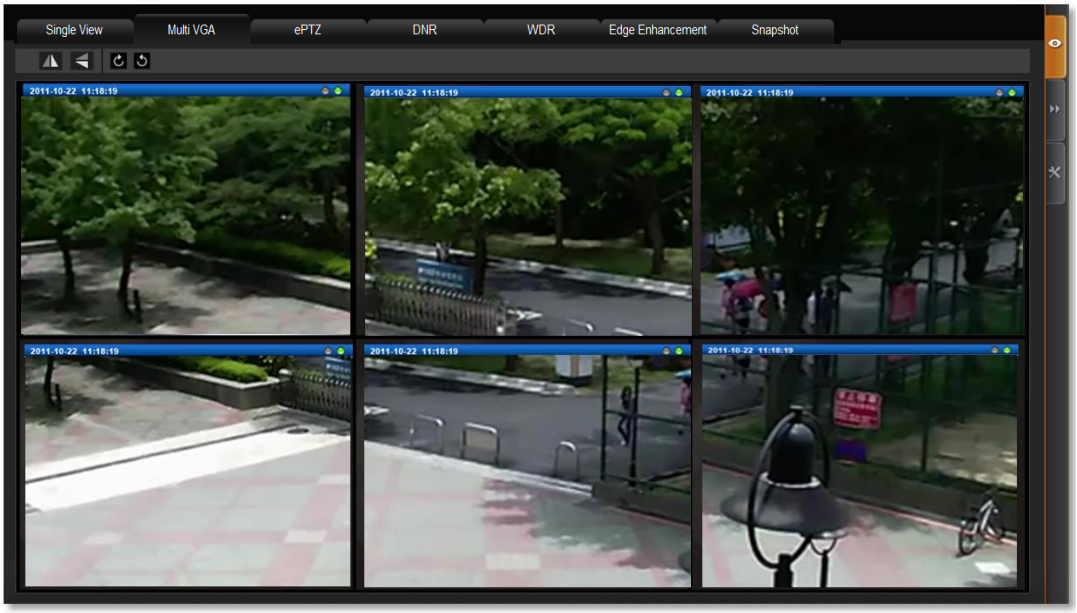


Fig. 11 6 VGA

In 6VGA mode, each of 6VGA regions can be independently repositioned using mouse over video control. You can also set the **Rotate** buttons to rotate the image.

ePTZ View Mode

For fisheye cameras, you can enter **ePTZ** mode to operate the ePTZ options. On the live view, ePTZ navigation can be controlled by dragging the mouse.

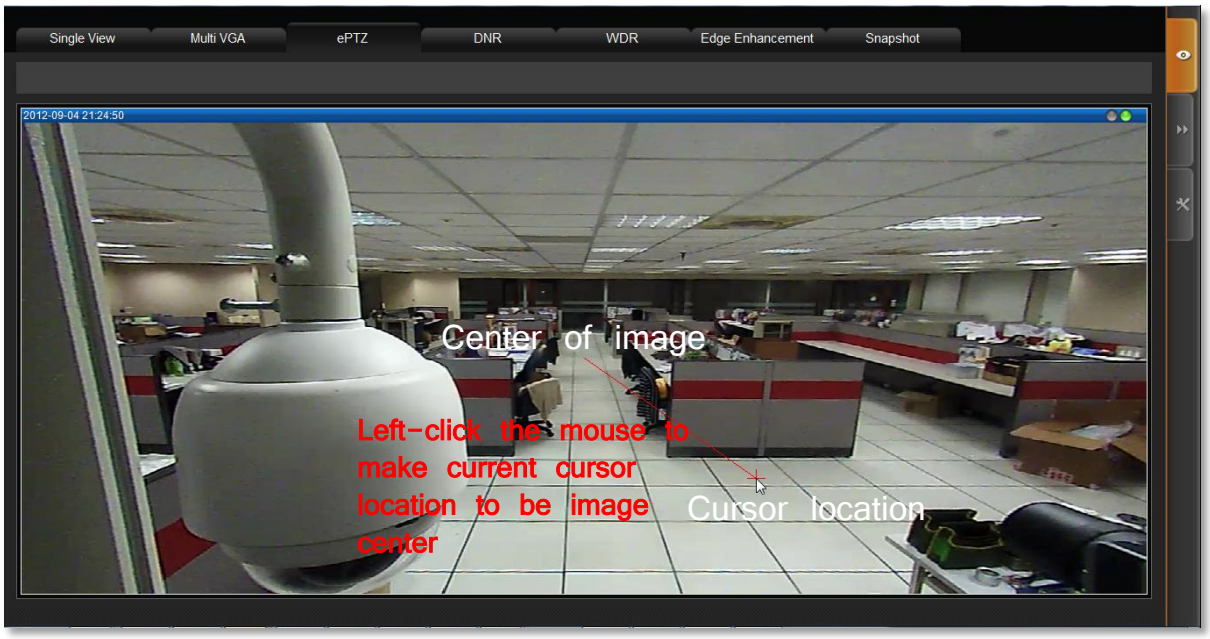


Fig. 12 ePTZ

DNR View Mode

DNR aims to do digital noise reduction for video. On **DNR** mode, **DNR** button will appear. Click on it to enable or disable the DNR function. Also, the view will change to single view mode (if it was Multi VGA or ePTZ before). All other lie view options are same as under "Single View" mode.

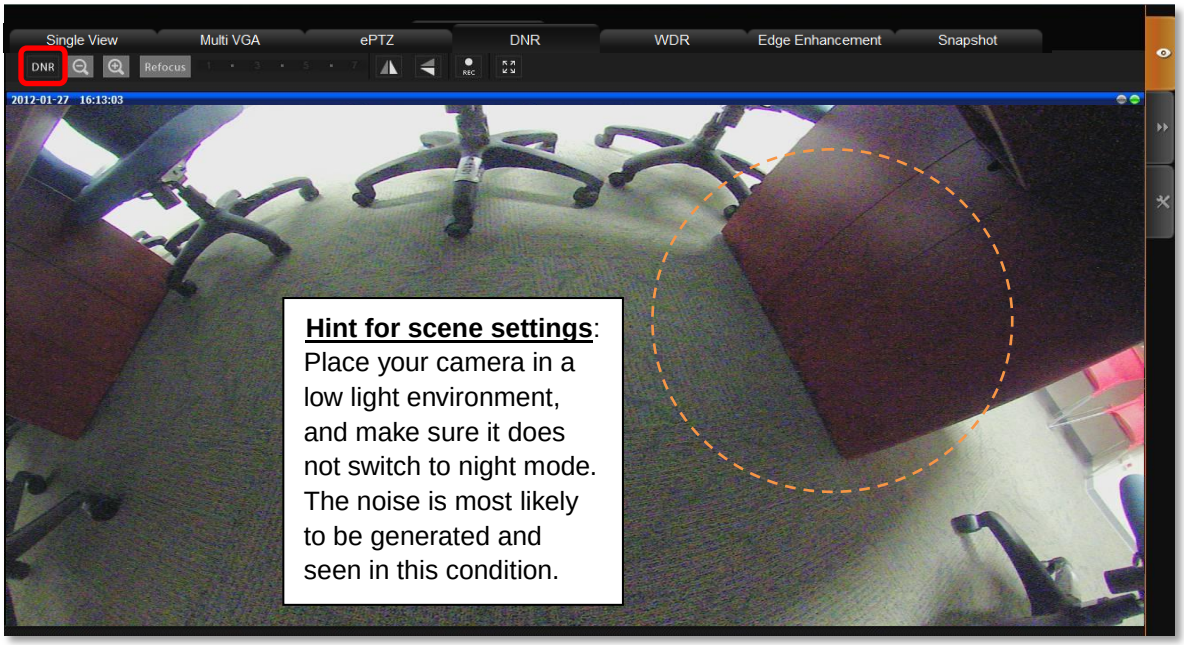

Single View
Multi VGA
ePTZ
DNR
WDR
Edge Enhancement
Snapshot
DNR
Refocus
2012-01-27 16:13:03
Hint for scene settings: Place your camera in a low light environment, and make sure it does not switch to night mode. The noise is most likely to be generated and seen in this condition.

Fig. 13 DNR Off

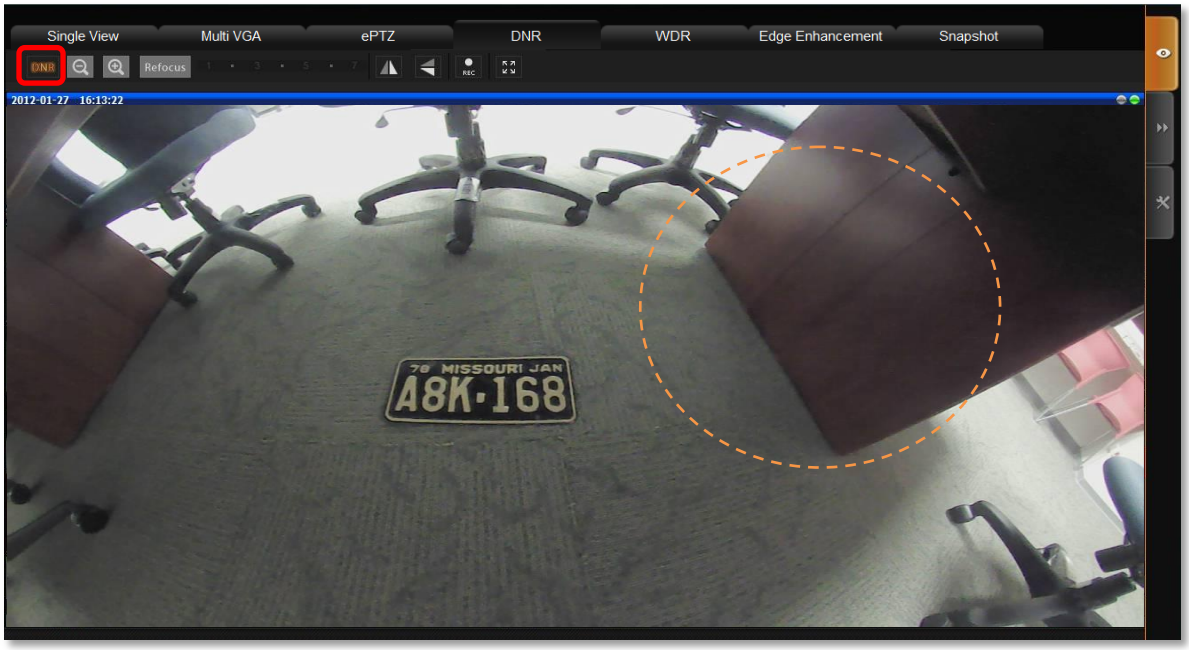


Fig. 14 DNR On

WDR View Mode

WDR technology will let dark area become clearer for video. In **WDR** mode, you can select the level of WDR enhancement: **High** (value =255), **Medium** (value =64), or **Low** (value =1). Default is "**Medium**". In addition, the view will change to single view mode if it was in Multi VGA or ePTZ mode previously. Upon your selection, the changes take effect immediately without pressing any additional buttons.

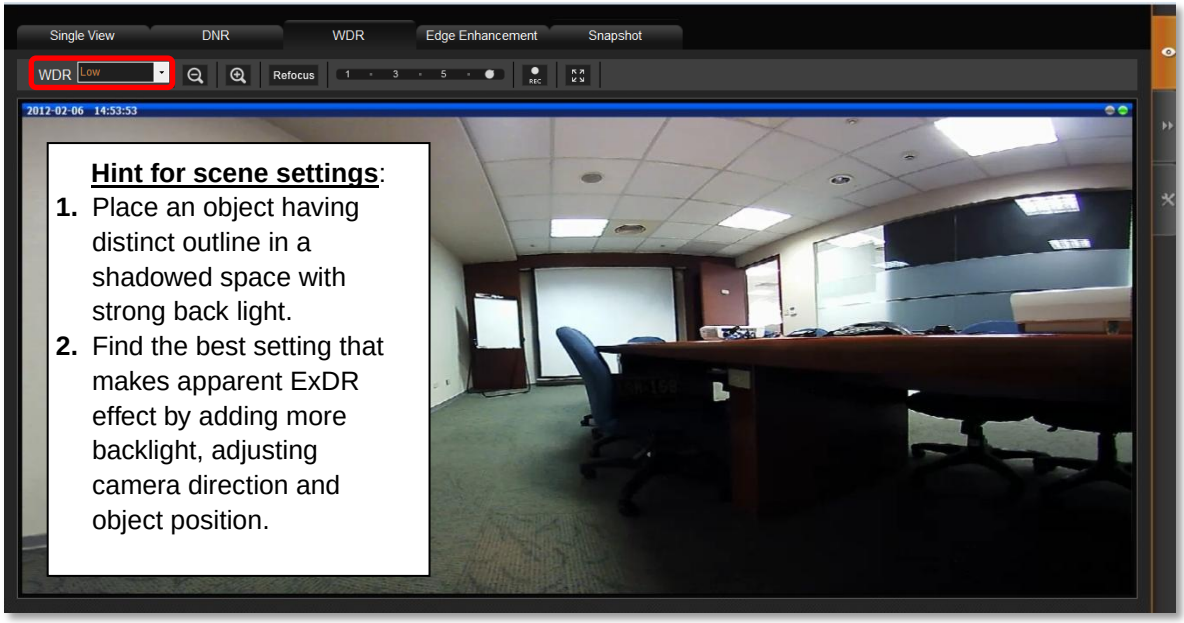

Single View
DNR
WDR
Edge Enhancement
Snapshot
WDR Low
Refocus
2012-02-06 14:53:53
Hint for scene settings:
1. Place an object having distinct outline in a shadowed space with strong back light.
2. Find the best setting that makes apparent ExDR effect by adding more backlight, adjusting camera direction and object position.

Fig. 15 WDR-Low

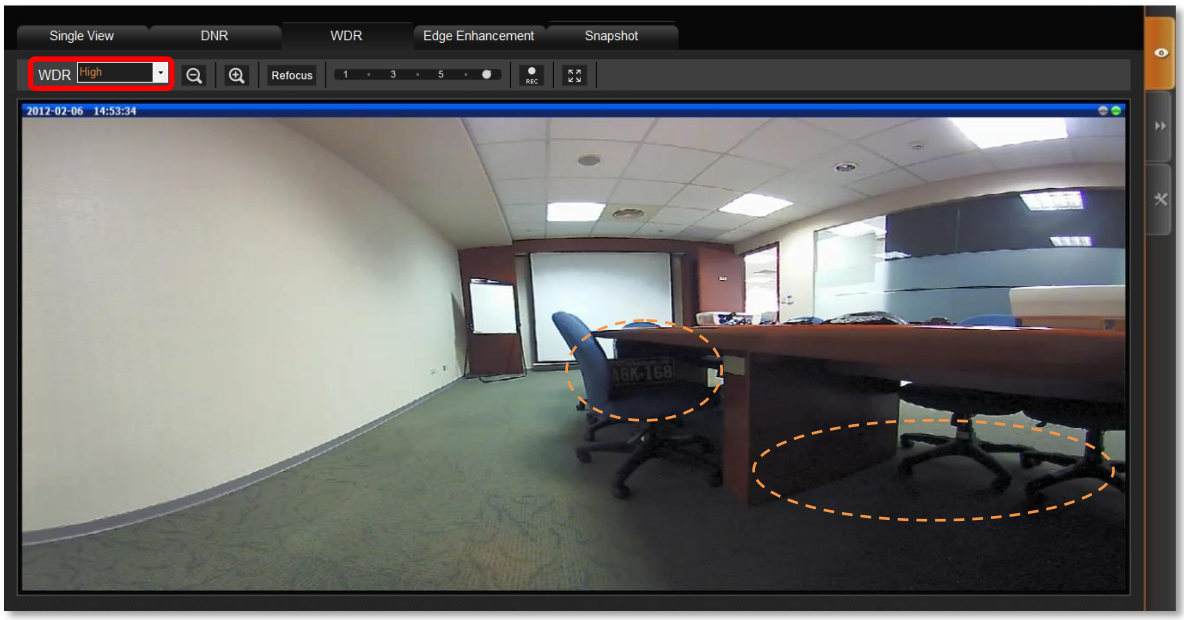


Fig. 16 WDR-High

Edge Enhancement View Mode

Edge enhancement technology makes object outline clearer and sharper to identify. In **Edge Enhancement** mode, you can select the level of Edge Enhancement: "**Sharp Edge**, **Normal Edge, Soft Edge**" where sharp edge equals 255, normal edge 104 and soft edge 1. Default is "**Normal Edge**". Upon your selection, the changes take effect immediately without pressing any additional buttons. In addition, the view is set to single view mode.

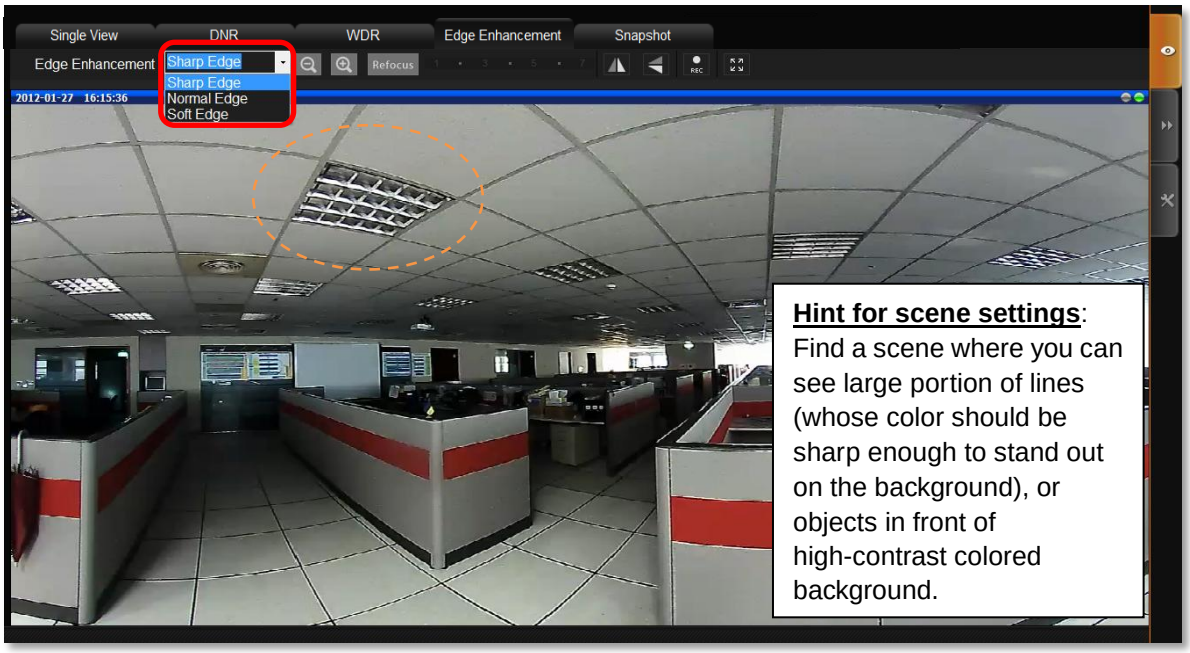

Single View
DNR
WDR
Edge Enhancement
Snapshot
Edge Enhancement
Sharp Edge
Sharp Edge
Normal Edge
Soft Edge
Refocus
2012-01-27 16:15:36
Hint for scene settings: Find a scene where you can see large portion of lines (whose color should be sharp enough to stand out on the background), or objects in front of high-contrast colored background.

Fig. 17 Edge Enhancement-Sharp Edge

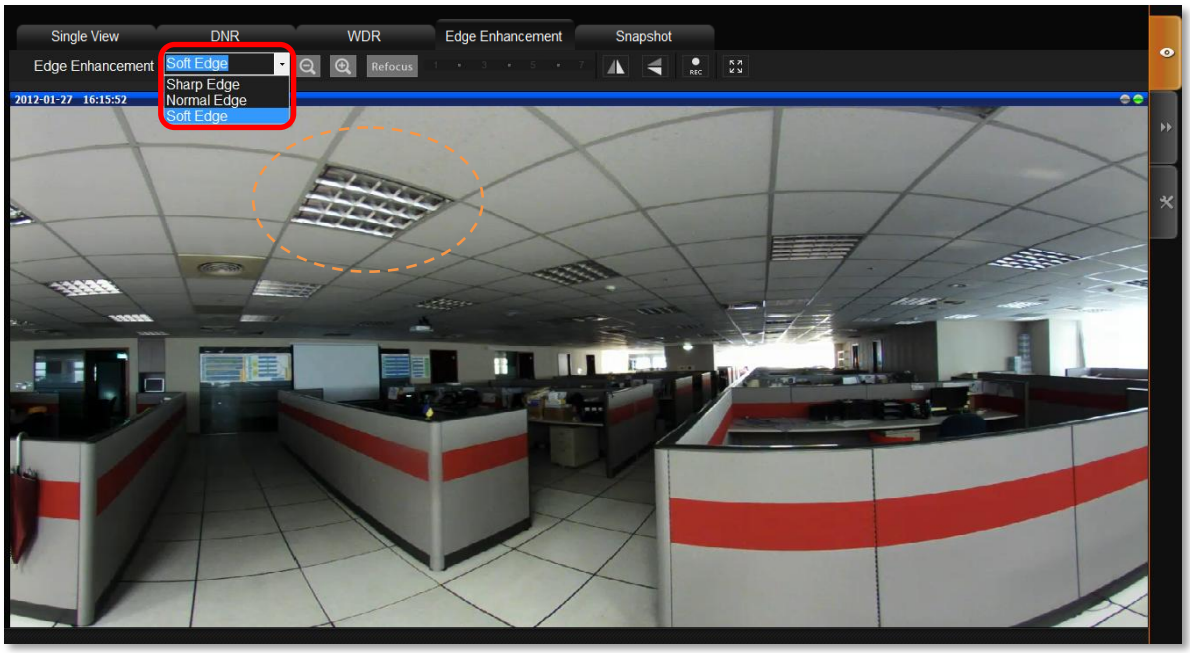


Fig. 18 Edge Enhancement-Soft Edge

Snapshot

Once you enter **Snapshot** mode, streaming will stop and a captured snapshot will be displayed. Move your mouse over the image and scroll up and down to zoom-in and zoom-out. When you zoom in, drag&drop on the move to the position you want see.

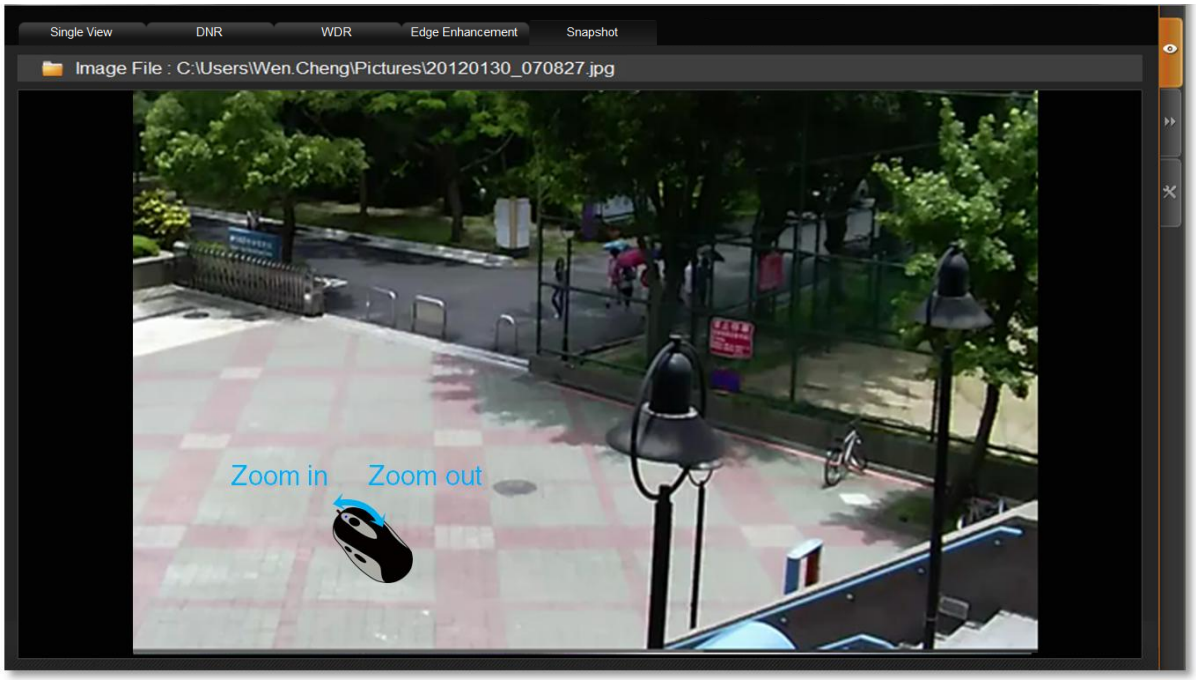


Fig. 19 Snapshot

The snapshot image is saved under **C:\[Users]\[User name]\My Pictures**, named by time code as .JPG format. You may click on Open File to open the folder where the snapshots are saved.

Every time you capture a snapshot, a text file named after the recording file will automatically be generated under the same folder. This text file contains all the properties information (e.g. resolution, encoder type, FPS, bit rate, etc.) of the camera while the snapshot was being taken, which is very helpful for further analysis.

Playback

To play recorded RAW file, switch to Playback page, click on Open File to invoke Explorer dialogue to select a RAW file.

Fig. 20 Single-view Recording

Once a RAW file has been selected, time bar will display, and you may control the video playback by clicking on **Play**, **Pause**, **Stop**, or by dragging the time bar.

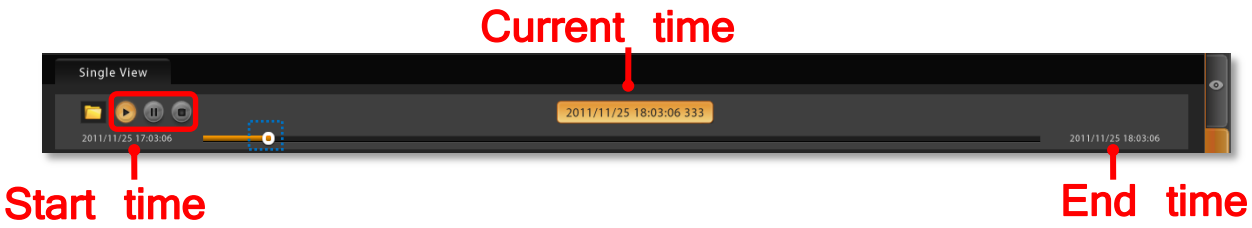


Fig. 21 Single-view Playback Controls